

Appln. No.: 10/531,893  
Amendment Dated: September 19, 2006  
Reply to Office Action of: June 23, 2006

MAT-8686US

**Amendments to the Drawings:**

The attached sheets of drawings include changes to Figures 1, 4, 5A and 5B. These sheets replace the original sheets.

Attachments

**Remarks/Arguments:**

The drawings were objected to. Corrected drawings are enclosed. Withdrawal of the objection is respectfully requested.

The title was found to be non-descriptive. A new title is being furnished.

Claims 1-17 have been rejected under 35 U.S.C. §103(a) as being obvious over Hirota (U.S. 2004/0188426). It is respectfully submitted, however, that these claims are patentable over Hirota for the reasons set forth below.

As shown in Fig. 5A and 5B of Hirota, source current is measured for a predetermined amount of time. In the example shown in Hirota's figures, the source current is measured for 0.1 seconds. As set forth in paragraph [0039], a "change of an inclination" during a 0.1 second interval indicates that the power needs to be lowered (because the object to be heated has been displaced).

Applicants' invention, as recited by claim 1, includes a feature which is neither disclosed nor suggested by the art of record, namely:

... a high frequency power source supplying a current to the heating coil ...

... a controller operable to signal the high frequency power source to change output of said high frequency power source if said period of time exceeds a predetermined amount of time ...

Applicants' claim 1 defines the "period of time" to be a time from when the heating output "drops to a first level ... to a time the heating output increases to a second level." This feature is supported by the originally filed application at page 8, lines 9-12 and in Applicants' Figure 2.

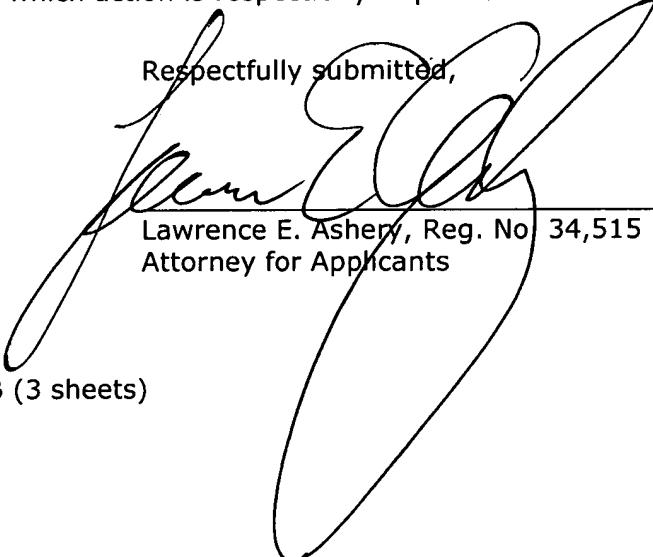
Thus, in accordance with an exemplary embodiment of the present invention, Applicants measure the period of time between A) the heating output dropping to a first level; and B) the heating output increasing to a second level. If the amount of time between the "drop" and the "increase" is greater than a predetermined amount of time, then Applicants signal the high frequency power source to change output.

Thus, Applicants' claimed feature is different than Hirota's method of determining whether inclination has changed during a 0.1 second interval. It is because Applicants' measure the amount of time between "drop" and "increase" of heating output that Applicants can respond to a load being lifted from their induction heater. As this feature is neither disclosed nor suggested by the art of record, Applicants' claim 1 is patentable over the art of record.

Claims 2-17 include the features of claim 1 from which they depend. Thus, claims 2-17 are also patentable over the art of record.

In view of the amendments and arguments set forth above, the above-identified application is in condition for allowance which action is respectfully requested.

Respectfully submitted,

  
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LEA/bj/ds

Attachments: Figures 1, 4, 5A and 5B (3 sheets)

Dated: September 19, 2006

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September 19, 2006

Deborah Spratt



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